

REMARKS

Claims 1-14 are pending in the application. Claims 10-14 are withdrawn, claims 1-9 stand rejected.

Claim 9 has been cancelled herein.

Claims 1 and 8 have been amended to clarify applicant's claimed invention.

Claims 15-17 have been newly added.

The amendments and new claims are based upon the original specification and claims. For example page 26, lines 6-15; page 17, line 19 to page 18, line 13; Figs. 10, 11 and page 18, lines 14-26, Fig. 12 and page 18, line 27 to page 19, line 4. No new matter is entered.

Claims 1-7 are objected to for an apparent informality where "plurality of transmission" in claim 1 should read "plurality of transmission lines." The informality has been corrected herein.

Claims 1-3, 8, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,461,622 to Bleickardt et al. (hereinafter Bleickardt) in view of European Patent Application Publication No. EP 0939509 A2 to Takatsu et al., further in view of U.S. Patent No. 6,253,247 to Bhaskar et al. (hereinafter Bhaskar); and claims 4-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable Bleickardt et al. in view of Takatsu et al. and Bhaskar et al., and further in view of U.S. Patent No. 6,473,438 to Cioffi et al.

Applicant's claims 1, 8 include at least the distinguishing features of the signal sending means for assigning the transmission signals to transmission lines to have capacity that is suitable for service contents and sending the transmission signals to one address, in parallel via a plurality of the transmission lines on which the bit rate is limited.

It appears that the Office Action applied the description on demultiplexing data to a single destination IP address on col. 6, lines 28-47 of Bhaskar as the alleged disclosure of the aforementioned claim features.

It is respectfully submitted, however, that the cited portions of Bhaskar describe sending data to multiple IP addresses over multiple serial lines to an ISP. Please see, e.g., col. 6, lines 36-41 of Bhaskar.

Indeed, the particular sentence relied upon by the Office Action on col. 6, line 44 of Bhaskar does not describe sending data over parallel transmission lines. The cited sentence is instead directed to a subsequent stage after the ISP has demultiplexed the parallel data from the source LAN and is sending the demultiplexed data over the internet to a single address of the destination ISP.

Therefore, it is respectfully submitted that the combination of references fail to teach the claimed features of at least sending data to a single address over parallel transmission lines on which the bit rate is limited.

Applicant's new claims 15-17 likewise include distinguishing features, for example:

(Claim 15) Wherein the receiving apparatus further includes delay information notifying means for giving the sending apparatus delay information regarding delays which have occurred at the time of receiving the transmission signals; and wherein the signal sending means calculates the bit rates of the divided signals respectively on the basis of the delay information; and wherein the signal dividing means divides the concatenation signal to meet the conditions that $X_1 + \dots + X_n = X$, that all the divided signals should reach by time t_1 , and that $X_1 \geq X_2 \geq \dots \geq X_n$ where X is the bit rates of the concatenation signal and $X_1 - X_n$ are the bit rates of the divided signals

and t1 is a receiving end time of the divided signal which arrived at the receiving apparatus fastest.

(Claim 16) Wherein the receiving apparatus further includes delay information notifying means for giving the sending apparatus delay information regarding delays which have occurred at the time of receiving the transmission signals; and wherein the signal sending means calculates the bit rates of divided signals respectively on the basis of the delay information: and wherein the bit rate BR is given by $BR = X * (T / (T - t))$ where X is the bit rate of a first divided signal which arrives at the receiving apparatus fastest and T is time distance from a receiving start time (t0) of the first divided signal to a receiving end time (t1) and t is the delay information, is a value for a difference of the time (t1) and a receiving end time of a second divided signal which arrives at the receiving apparatus later than the first divided signal.

(Claim 17) Wherein the signal sending means overlaps a leading section of a divided signal and a delay portion of another divided signal and sends them.

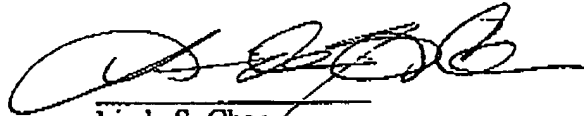
The combination of references (Bleickardt, Takatsu, Bhasker, Cioffi) fail to disclose the features of claims 1, 8, 15-17. For example the combination of the references fails to disclose the switching means shown above. Accordingly, the invention set forth in claims 1, 8, 15-17 should not be considered as being obvious from the combination of the references.

Applicant's dependent claims include at least the above described distinguishing features in addition to further recited features and should be allowed.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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